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| 09/823,298 | 03/29/2001 | Juergen Bauml | LMPY-8410 | 6837 |

7590 05/12/2004
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| EXAMINER | |
|-------------------|--------------|
| LANDAU, MATTHEW C | |
| ART UNIT | PAPER NUMBER |

2815

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,298

Applicant(s)

BAUMLER, JUERGEN

Examiner

Matthew Landau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-13, 27, 28, 34 and 41-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27, 28, 34 and 41-43 is/are allowed.
- 6) ☒ Claim(s) 1, 4-6 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 2, 3 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification does not provide antecedent basis for "an outlet area".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9, 10, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted prior art.

In regards to claim 1, Figures 3, 4, and 5 of the instant application disclose a gas discharge laser, comprising: a housing 211, a first electrode 207; and second electrode 208; a second electrode support 209; a first cross-flow blower section 202 including a plurality of blades, further including a plurality of internal hubs and two end hubs, each of said end hubs coupling with a shaft and defining a cylindrical form extending along a cylindrical axis of the blower section; a second cross-flow blower section 203 including a plurality of blades further including two end hubs, said end hubs coupling with a shaft and defining a cylindrical form coaxial with the cylindrical form of the first cross-flow blower section, wherein the blower sections are disposed longitudinally along the cylindrical axis so that two end hubs of the blower

sections are adjacent to each other; and a flange 201 supporting the adjacent hubs of the first and second blower sections, wherein the flange is attached to the housing in an area opposite the electrodes and does not extend in the direction of gas flow beyond an outlet area of the blower sections to permit the gas flow through the two blower sections to combine; said flange also having a leading edge point and a trailing edge point with respect to a direction of gas flow. Note that it is considered that the outlet area is the area between the end of the flange and the discharge electrodes.

In regards to claims 9 and 10, US Patent No. 5,870,420, which had been incorporated by reference into Applicant's disclosure (page 3, lines 3-6 of the instant specification), discloses blades, internal hubs, and end hubs all formed from aluminum alloy (column 2, lines 14-16). Therefore, the admitted prior art encompasses blades, internal hubs, and end hubs all formed from aluminum alloy.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Hofmann.

In regards to claim 4, the difference between the admitted prior art and the claimed invention is the radial blades have a first radius of curvature of a top surface smaller than a second radius of curvature of a bottom surface. Figure 3c of Hofmann discloses a tangential blower with a radial blade 320 having a first radius of curvature of a top surface greater than a second radius of curvature of a bottom surface. In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the invention of the admitted prior art by including the radial blades of Hofmann for the purpose of increasing the aerodynamic efficiency.

In regards to claim 5, the difference between the admitted prior art and the claimed invention is the radial blades have a cross-section shaped like an airfoil. Figure 3c of Hofmann discloses a radial blade 320 with a cross-section shaped like an airfoil. In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the invention of the admitted prior art by including the radial blades of Hofmann for the purpose of increasing the aerodynamic efficiency.

In regards to claim 6, a difference between the admitted prior art and the claimed invention is the inner and outer surfaces of the blades have different radii of curvature. Figure 3c of Hofmann discloses a radial blade 320 wherein the inner and outer surfaces of the blade have different radii of curvature. In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the invention of the admitted prior art by including the radial blades of Hofmann for the purpose of increasing the aerodynamic efficiency.

In regards to claims 11 and 12, a difference between the admitted prior art and the claimed invention is the radial blades, end hubs, and internal hubs are formed from magnesium

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or titanium alloy. Hofmann discloses radial blades, end hubs, and internal hubs formed from magnesium and titanium alloy (column 9, lines 30-35). In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the invention of the admitted prior art by using the materials of Hofmann for the purpose of selecting lightweight, durable materials.

Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Immell et al. (US Pat. 6,250,886, hereinafter Immell).

In regards to claim 13, the difference between the admitted prior art and the claimed invention is the radial blades, end hubs, and internal hubs are formed from steel. Immell discloses a fan with radial blades constructed from steel (column 4, lines 22-25). In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the invention of the admitted prior art by using steel for the blower components for the purpose of selecting a durable material.

Allowable Subject Matter

Claims 27, 28, 34, and 41-43 are allowed.

Claims 2, 3, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed February 17, 2004 have been fully considered but they are not persuasive.

In response to Applicant's arguments that the prior art shown in Figures 4 and 5 "has a flange 201 that extends beyond the outlet area of the blower sections, which keeps the gas flow from mixing together", since Applicant has not structurally defined "outlet area", it can be considered that the area between the end of flange 201 and the discharge electrodes 207/208 (Figure 5) is the outlet area of the blower sections. This is a reasonable interpretation since gas is output from said area. Therefore, Figure 5 discloses the flange does not extend beyond the outlet area. Gas flow from the two blower sections will combine in this area, even if only for a short time.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Landau whose telephone number is (571) 272-1731.

The examiner can normally be reached from 8:30 AM - 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Matthew C. Landau

Examiner

May 3, 2004


JEROME JACKSON
PRIMARY EXAMINER